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INFRASTRUCTURE DAMAGE ASSESSMENT ABYAN, ADEN AND LAHJ GOVERNORATES

FINAL REPORT

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INFRASTRUCTURE DAMAGE ASSESSMENT ABYAN, ADEN AND LAHJ GOVERNORATES

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ACRONYMS

BOQ	Bill of Quantity
CLP	Community Livelihoods Project
COP	Chief of Party
CSSW	Charitable Society for Social Welfare
DEO	District Education Office
GEO	Governorate Education Office
IBTCI	International Business and Technical Consultants Inc.
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
INGO	International Non-Governmental Organization
IRD	International Relief and Development
M&E	Monitoring & Evaluation
MOE	Ministry of Education
MOPHP	Ministry of Public Health & Population
MOPIC	Ministry of Planning and International Cooperation
MOPWH	Ministry of Public Works and Highways
OTI	Office of Transition Initiatives
ROYG	Republic of Yemen Government
SOW	Scope of Work
UN	United Nations
UNICEF	United Nations International Children's Education Fund
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organizations
YMEP	Yemen Monitoring and Evaluation Project

1. EXECUTIVE SUMMARY

From May 2011 to June 2012, conflict between the Yemeni Security Forces and insurgents in Abyan displaced nearly 200,000 people and damaged the livelihoods of another 200,000 war-affected people. Extensive conflict-related damage to infrastructure in Abyan was incurred during this protracted period of fighting, especially in Zingibar and Khanfir districts. The critical need in Abyan governorate immediately post-conflict was to conduct a comprehensive assessment of damage to public infrastructure to accurately understand the reconstruction requirements to prioritize interventions and ensure that all who are in need of assistance receive it.

Following a request from the Governor of Abyan, expressing the need for a comprehensive assessment of the damage to schools, health facilities, markets, roads and electricity networks in the governorate, USAID requested the Yemen Monitoring and Evaluation Project (YMEP) managed by International Business and Technical Consultants Inc. (IBTCI) to conduct a Damage Assessment in Abyan governorate. IBTCI sub-contracted the engineering assessments and development of a web-based Assessment Database to International Relief and Development (IRD). The Assessment was carried out from September to December 2012 through close collaboration with the Republic of Yemen Government (ROYG) representatives in Abyan. Identification of key Assessment priorities was provided to the USAID Assessment team by the Governor's Liaison and ROYG Line Ministries in Abyan.

Assessment of a total of 281 facilities and infrastructure in Abyan, Aden and Lahj governorates was completed using mobile and internet technologies to collect and store the data on a central web-based database that allows the assessment data to be readily available to all stakeholders. A mobile data gathering system that used smartphones to gather pictures, engineering damage assessment data and GPS coordinates was used to assess damage levels for each object assessed and this information was subsequently uploaded to an on-line database. This database enables ROYG, donor and international non-governmental organization (INGO) stakeholders to view the damage of all assessed structures; provide an easy system of reference to estimate reconstruction budgets; and establish a baseline from which future reconstruction efforts can also be monitored and tracked to prevent overlap of multiple donor efforts in Abyan and enable equitable delivery of assistance. Despite the initial concerns regarding security in Abyan, no significant incidents or constraints were encountered by the IBTCI or IRD teams during the 2.5 months of fieldwork.

The Assessment determined that the majority of substantial conflict-related damage in Abyan governorate was concentrated primarily in Zingibar district and in the Ja'ar area of Khanfir district. The Assessment concluded that there remains an immediate need for the ROYG and international donors to quickly fund the rehabilitation of schools, education centers (including the Governorate Education Office and District Education Office facilities in Zingibar and Khanfir), the general hospital in Zingibar and the Zingibar Fish Market that were badly damaged in the conflict and remain either non-functional or partially operational. Other schools and health facilities in Abyan that were not damaged in the conflict still require significant investment in maintenance, rehabilitation, and equipping to upgrade and sustain these public service facilities. It was surprising to note that despite the intensity of the conflict, the damage to roads in the region was minimal. No major damage was sustained by bridges in Abyan. The remaining damage to roads in Abyan is primarily due to weather-related damage and erosion.

An additional assessment of 78 IDP schools in Aden and 39 IDP schools in Lahj was added during the Assessment period. Significant damage occurred to the internal structure of these IDP-occupied schools in large part due to looting of windows, doors, electrical and plumbing fixtures and damage to school equipment. Twenty of the 78 IDP schools assessed in Aden remained occupied (either completely or

partially) by IDPs at the time of the Assessment in November 2012. The Lahj schools were fully vacated of IDPs at the time of the November 2012 assessment.

Presentations of the Assessment data and database to ROYG officials from Abyan and Aden and MOPIC officials in Sana'a were well received, with the ROYG highlighting the impact this collective data and comprehensive reports will have on their ability to better understand, communicate and prioritize the needs of their governorates during the months of reconstruction and rehabilitation that lie ahead. The Assessment was also shared with United Nations (UN) and INGO representatives in both Aden and Sana'a.

2. BACKGROUND

Since May 2011, conflict between the Yemeni Security Forces and insurgents in Abyan displaced nearly 200,000 people and damaged the livelihoods of another 200,000 war-affected people. In early May 2012, the Republic of Yemen Government (ROYG) deployed 25,000 troops, backed by another 3,500 tribesmen, to fight the insurgents who had taken control of most of Abyan Governorate, including the governorate capital Zingibar. On June 13, 2012 the government announced that Zingibar and Ja'ar cities had been recaptured and declared the two main roads open for civilian and humanitarian access. Initial information from local NGOs visiting Abyan, Zingibar and Khanfir districts determined that extensive damage to infrastructure was apparent, especially in Zingibar, Al Koud and other areas in Khanfir district.

Understanding the level and location of damage to key public infrastructure is foundational to developing and implementing the ROYG's strategic reconstruction plan. This plan, through support from USAID and other international donors, will enable citizens to return to their homes, have access to reliable public services, and be able to re-start their businesses and improve the economic reality in Abyan. The critical need in Abyan governorate immediately post-conflict was to conduct a comprehensive assessment of damage to public infrastructure to accurately understand the reconstruction requirements to prioritize interventions and ensure that all who are in need of assistance receive it.

At the request of USAID/Yemen, the Yemen Monitoring and Evaluation Project (YMEP) implemented by International Business & Technical Consultants, Inc. (IBTCI), was asked to submit a proposal in August 2012 to conduct an assessment of conflict-related damage in Abyan governorate. IBTCI sub-contracted the engineering assessments and development of a web-based Assessment Database to International Relief and Development (IRD).

3. SCOPE OF WORK

The initial purpose of this USAID-funded Infrastructure Damage Assessment was to assess and map the extent of damage to public buildings (specifically schools and health facilities in urban locations) and infrastructure (urban markets, major access roads and urban electricity networks) in Abyan governorate in order to create a central web-based data repository to be used by the Yemen government and international donors in the planning, implementation and subsequent monitoring of rehabilitation and reconstruction efforts. This Assessment not only mapped and assessed the extent of damage to public infrastructure in the governorate of Abyan and to IDP schools in Aden and Lahj, but has also provided baseline data for future USAID project interventions against which progress can be effectively measured.

In September 2012 USAID approved the IBTCI proposal for this Assessment. The Assessment Senior Manager and Senior Engineer arrived in Yemen by mid-September 2012 to commence the Assessment tasks.

At the request of USAID, the Assessment Scope of Work (SOW) was modified in early October 2012 to include additional assessment of damage to IDP schools in Aden and Lahj governorates and of the number of student desks required by these IDP schools. The initial timeline for the Assessment was 2.5 months (September 15, 2012 to November 30, 2012). The Assessment period was extended by USAID to December 15 2012 following the SOW modification.

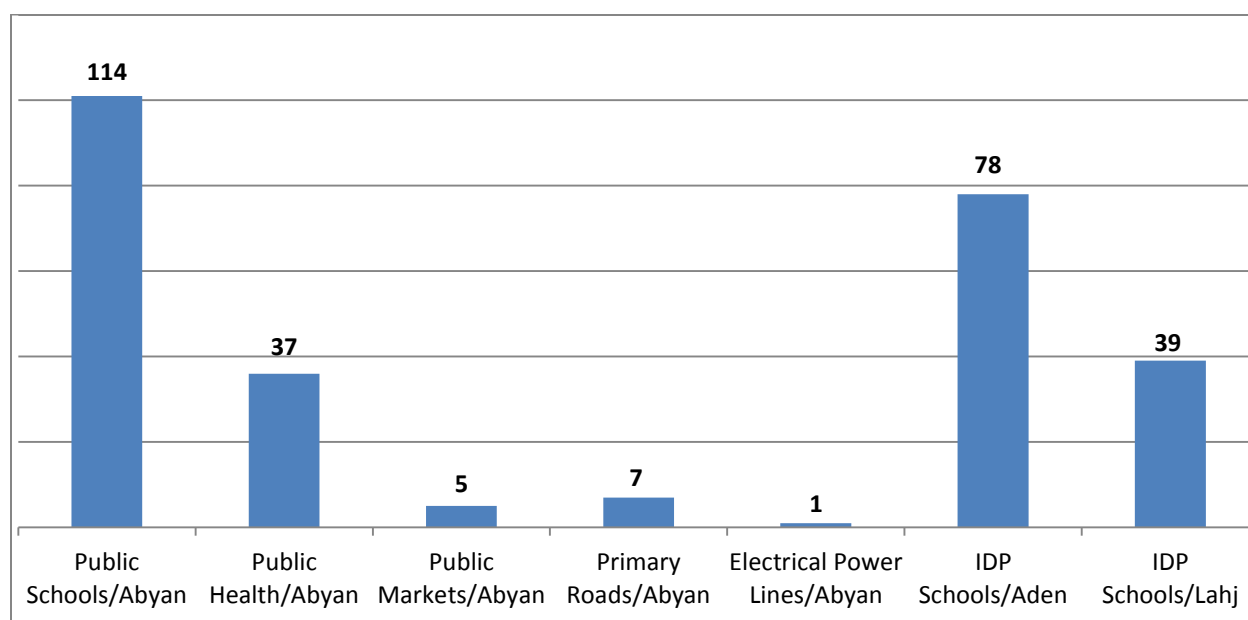
4. METHODOLOGY

An initial meeting was held in Sana'a in mid-September 2012 with USAID, YMEP and the Assessment management to review, discuss, and confirm the Assessment SOW. A subsequent meeting was held with the managers from the USAID-funded Community Livelihoods Project (CLP) and Office of Transition Initiatives (OTI) to provide the Assessment Managers with an overview of the ongoing and completed United States Government (USG) initiatives in Abyan. The Program Manager, in consultation with the YMEP Chief of Party, developed the Assessment work plan in the first week of the subcontract.¹

During the Assessment Team's first week in Yemen, the Senior Manager and Senior Engineer met with the Charitable Society for Social Welfare (CSSW), which was selected by IRD as the local subcontractor to carry out the field-based engineering assessments in Abyan, Aden and Lahj. IRD recruited and trained 12 local engineers from CSSW to carry out the field assessments and a further three engineers to support the data entry process for the Assessment Database.

The Assessment Team management met with the Governor of Abyan and with the Abyan Directors of the Line Ministries of Education, Health, Public Works and Highways, Electricity and MOPIC to discuss the parameters of the Assessment and request a list of prioritized public buildings and infrastructure. These lists then formed the basis of the 281 assessment site visits conducted over the 3-month period.

Figure 1: Number of Infrastructure Objects Assessed:



Using mobile and internet technologies to collect and store the data helped the Assessment Team to develop a central database that is now transparent to all stakeholders. The Team met this technology

¹ Refer Annex 1 for the Assessment workplan

requirement by adapting systems for assessing and mapping damage that was developed in Iraq and Afghanistan. Given the urgent nature of the Abyan Assessment, the Team began using templates from previous damage assessments conducted extensively in other countries. A mobile data gathering system that used smartphones to gather pictures and GPS data was introduced to assess damage levels in the field and upload this information to an on-line database. The database enables ROYG, donor and INGO stakeholders to view the damage of all assessed structures; provide an easy system of reference to estimate reconstruction budgets; and provide a baseline from which future reconstruction efforts can also be monitored and tracked to prevent overlap of multiple donor efforts in Abyan and enable equitable delivery of assistance.

Prior to the commencement of the Abyan assessment, IRD's database programmers custom-coded the assessment templates and uploaded them to the central Assessment Database and to smart phones. Smart phones were configured to host the assessment templates and enabled the CSSW engineers to gather information such as GPS location, engineering data, and photographs from each site directly onto the smartphone, thus speeding up the process of entering data to the central Assessment Database. CSSW engineers were trained and deployed to Abyan on a daily basis to assess the damage to infrastructure in the governorate. When each field assessment was completed, the data was checked for accuracy by both the Senior Engineer and the Senior Program Manager before the reports were uploaded to the Assessment Database. This online database will allow donors, partners, and the ROYG to download the web-based Assessment Reports, Bills of Quantity² (BOQs), and data in a systematic, rapid, and easy-to-retrieve way.

To understand the scope of the BOQs developed under this Assessment, the following clarifications are important:

- The costs noted in the BOQs for each object assessed are the basic cost estimates that include unit pricing and totals to repair the assessed damage.
- The BOQs were provided to USAID as part of this Assessment as a tool to help estimate budget and cost allocations for the southern recovery work post Assessment and should not be used as an exact document for subsequent tendering purposes.
- The BOQ prices include: detailed unit costs for each aspect of the reconstruction that is needed to make the facility functional again post conflict-related damage or following substantial deterioration due to poor maintenance. Industry standard for construction work is that unit prices for BOQs normally incorporate labor costs into the overall price per unit. The main situation when this is not the case is for specific Cash for Work related construction activities, where the donor normally wants to know the exact labor cost per day, per person (and the implementer would then be required to report on the labor hours and cash for work income generated as part of the indicators for this activity), in addition to the unit costs for construction.
- The BOQ prices do not include: a) additional unexpected transportation costs that a contractor may charge if the distance to the location is far from the source of the materials; b) any additional elements added to the existing building that were not present prior to the conflict damage such as wheelchair ramps, additional classrooms or health facility rooms etc.; c) equipment repair or replacement needed at the facility; d) company or organization operations costs that may be added to the cost of construction; e) company overhead, fee or administration costs that may be added to the cost of construction.
- Based on the costs noted above that are not included in the Assessment BOQs it is reasonable to assume that future tender bids for reconstruction work for these facilities may be higher than the basic BOQ totals estimated for each of these Assessments.

² Refer Annex 3 for example of an Assessment BOQ

The CSSW engineers catalogued the level of damage for each object assessed according to three categories of damage: major (more than 75% damage to the structure), moderate (25-75% damage to the structure) and minor (less than 25% damage). The engineering assessments were subsequently checked for accuracy by the Senior Engineer, and a cost of repair was estimated using engineering industry standards. An Assessment Summary Report³ and BOQ was developed for each object assessed to provide a detailed list, quantity, and unit price for each re-construction or rehabilitation task required.

The Senior Program Manager coordinated all assessment tasks, interfaced with YMEP's COP regarding the progress and timely completion of all deliverables, coordinated and communicated efforts with the ROYG and donor partners in Aden and Abyan, and ensured the quality of data collected and uploaded to the online database.

Access to the Assessment Database Application

The Assessment Database application is accessible at the following url: <https://gomal.ird-more.org/more/resources/> using the following credentials:

- username: **yemen_assessment**
- password: **public**

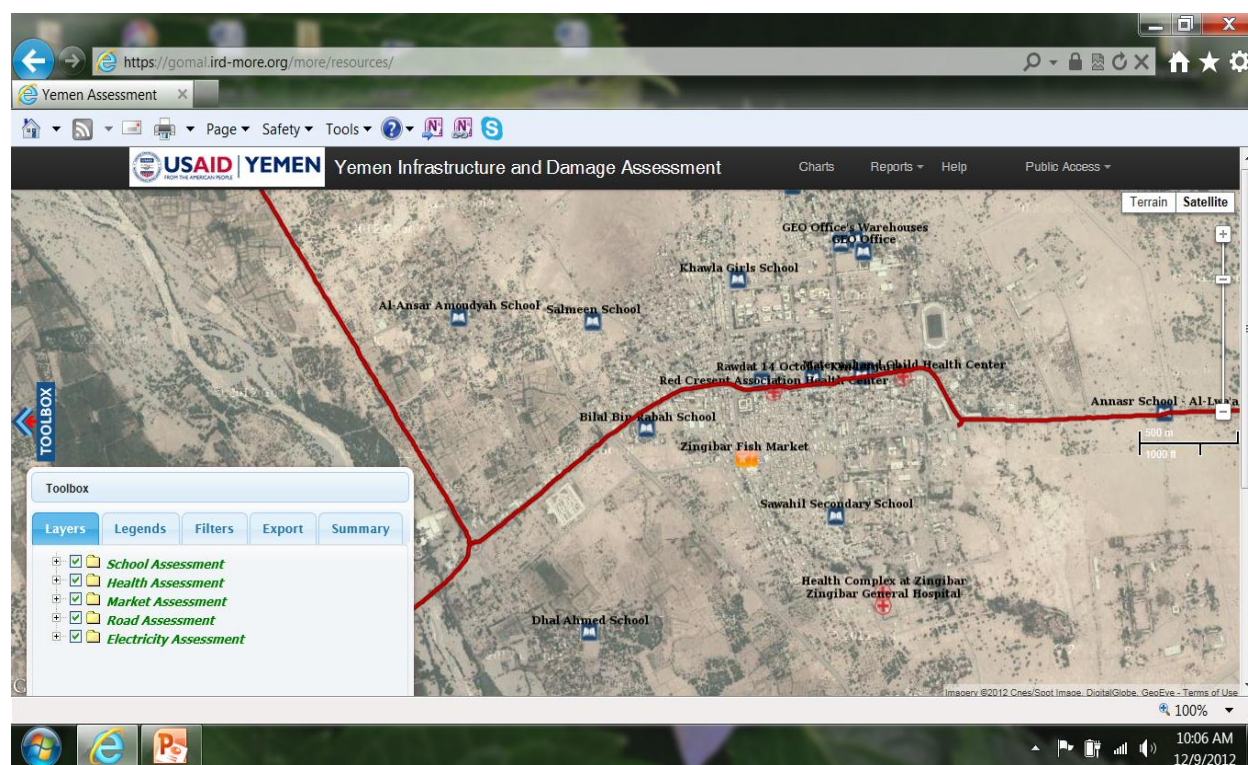
To access the Assessment Database the user should click on the “Sign In” button as shown in the screen shot below from the log-in page.



The screenshot shows a login interface for the 'Yemen Infrastructure and Damage Assessment' application. At the top, the USAID logo is displayed next to the text 'YEMEN FROM THE AMERICAN PEOPLE'. Below this, the title 'Yemen Infrastructure and Damage Assessment' is shown in blue. A message states: 'For public access use the following user name and password:'. The credentials are listed as 'Username: yemen_assessment' and 'Password: public'. Below the text, there are two input fields: 'Username' and 'Password'. The 'Username' field contains the text 'yemen_assessment' and is highlighted with a red border. The 'Password' field contains a series of asterisks '*****'. To the right of the password field is a blue button labeled 'Sign In'. Below the password field is a link that says 'Forgot Password?'. The entire login form is enclosed in a light blue border.

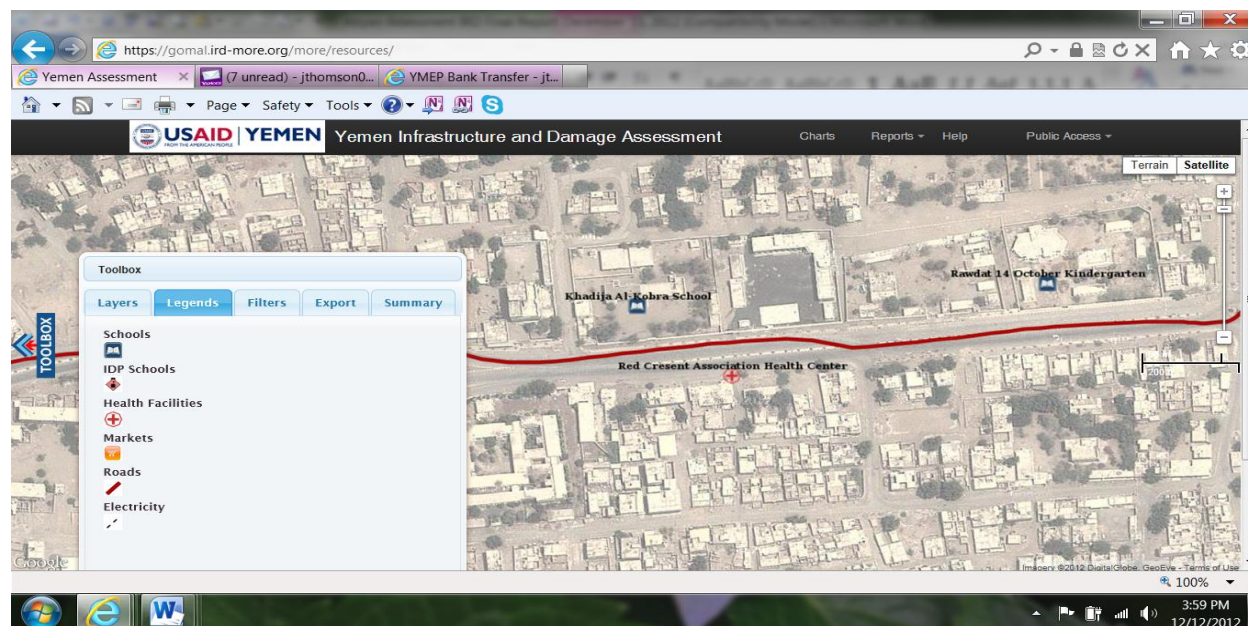
A screenshot of the database's map interface below shows an example of the icons depicting some of the assessment locations in Abyan.

³ Refer Annex 2 for example of an Assessment Report



Database Feature Selection

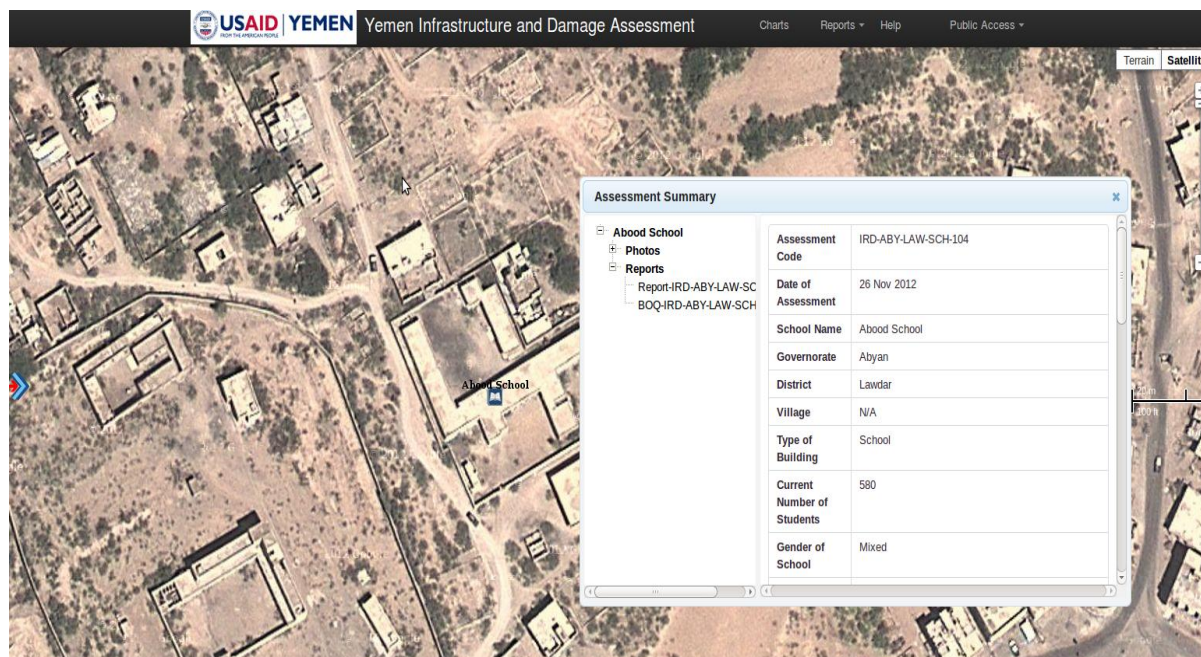
A user can click on an individual assessment's icon on the map to get detailed information for that particular assessment. The icons for the assessment sectors (schools, IDP schools, health facilities, markets, roads, and electricity) are shown in the below screenshot of the database toolbox:



A pop-up interfaces displays “Assessment Summary” information, as seen in the screenshot below. The interface contains three type of information:

- ✧ Summary information on the facility such as name, location, damage category, etc.

- ✧ Photo section containing photos of the assessed facility.
- ✧ Report section containing two types of reports produced for the facility: the first is a summary report and the second is the BOQ produced after the assessment. Both reports can be downloaded by the user as PDF files.



During the course of the three-month Assessment, IRD’s Senior Program Manager and YMEP’s COP met three times with USAID to present an update of the progress, discuss any challenges, review any changes in the SOW, and ensure close coordination and communication with USAID. In addition to these in-person meetings with USAID, YMEP submitted weekly reports to USAID.

Per USAID’s request, the completed Assessment of student desks in Aden and Lahj IDP schools was submitted on November 17, 2012. The data from the assessment of desks is included in the Assessment Master tracker⁴.

Following completion of the Assessment in early December 2012, the Senior Program Manager and YMEP’s COP presented the assessment findings and a training in use of the on-line Assessment Database to ROYG officials from Abyan and Aden (Abyan Governor’s Office, MOPIC, Ministry of Education, Ministry of Public Health and Population, Ministry of Public Works and Highways, and Ministry of Electricity) and to United Nations (UN) and International Non-Governmental Organizations (INGOs) in Aden and Abyan. The feedback was very positive on the impact and usefulness of the data collected for subsequent reconstruction planning in Abyan, Aden and Lahj.

USAID and YMEP will meet with MOPIC in Sana’a in mid-December 2012 to discuss the most effective way to integrate and maintain this database as a ROYG assessment and data storage tool. Additionally, IBTCI and IRD headquarters teams are working together to support the integration and merging of the Assessment’s data and database tools with USAID’s existing Clearinghouse database. This integration process will take place under the YMEP contract over the next several months, following the conclusion of IRD’s subcontract.

⁴ Refer to Master Tracker Excel attachment in Annex 4 of this Report

5. KEY FINDINGS

5.1 EDUCATION FACILITIES – ABYAN

The Ministry of Education (MOE) provided the Assessment Team a priority list containing the names 134 schools, all described by the MOE as having buildings that were “partially damaged by shells and blasts.” These educational facilities were located in the following districts:

Ahwar	6
Khanfir	69
Lawder	12
Modeah	8
Rasad	3
Sarar	7
Wadhe’a	7
Zingibar	22

The MOE estimated the total cost for renovation of these school facilities at US\$15.2 million, with an additional US\$6.4 million estimated for investment required for equipment, for a total estimated cost of over US\$21.6 million.

At the beginning of the Assessment, several consultations were held with USAID and with the United Nations International Children’s Education Fund (UNICEF) in Aden and with INGOs working in to discuss whether these estimated figures were considered accurate. There was general consensus that the MOE figures were unreliable and over-inflated and that the Assessment team should continue, as planned in the USAID approved SOW, to focus their efforts on assessing public buildings primarily in the areas most affected by the Abyan conflict(i.e. Zingibar and Khanfir districts).

The assessment of schools in Abyan focused primarily, therefore, on Khanfir and Zingibar Districts. Twelve schools in Lawder District were later added to the assessment work plan as there was reason to believe that minor conflict damage to public buildings may have also occurred there.



Children attending class in a badly damaged Abyan school



Example of common exterior damage



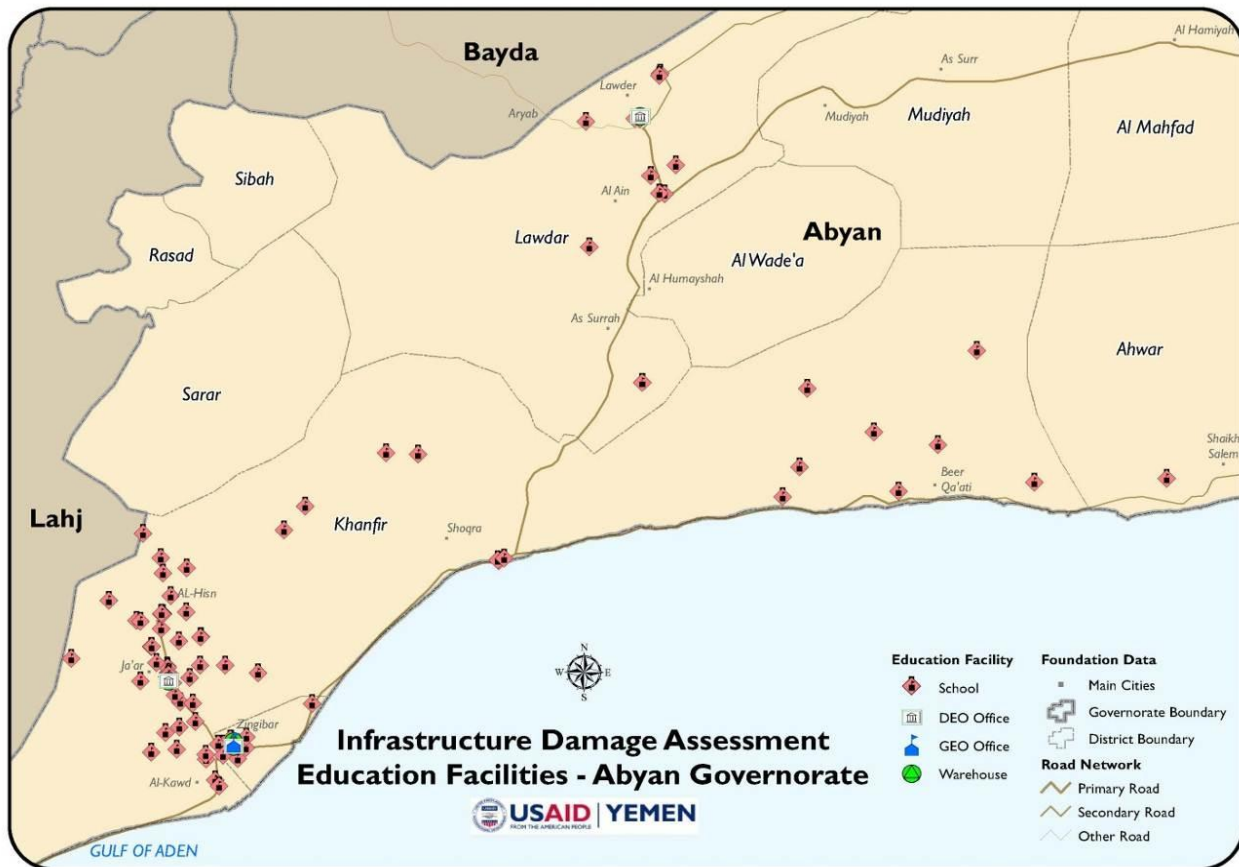
Example of common interior damage

Photos: USAID/YMEP/IRD

Results Overview

- Of the 114 schools on the MOE list, 98 entries (86%) were assessed and recorded in the Assessment Database.
 - At the time of the Assessment, 12 schools in Abyan were occupied by IDPs
 - 4 education facilities were assessed as having “major damage” (75% or more of structure is damaged) including the Governorate Education Office (GEO) in Zingibar and the District Education Office (DEO) in Khanfir.
 - 23 schools were assessed as having “moderate damage” (25-75% of structure is damaged).
 - 71 schools were assessed as having “minor damage” (25% or less of structure is damaged).
 - 5 of 22 schools in Zingibar were being rehabilitated by USAID/CLP at the time of assessment. Rehabilitation of these schools was subsequently completed and they were handed over to the MoE from late October 2012 through mid-November 2012
 - 6 additional schools located in Zingibar and Khanfir were approved by USAID for rehabilitation through CLP, to commence in December 2012.
 - 12 schools were determined to have duplicate names and could not be included in the database. The reason for duplication is typically due to boys and girls schools that, in reality, function as a mixed school or when old and new names for the same school are sometimes confused by the local authorities and both names are included in the MOE list as separate school entries.
 - 2 schools could not be assessed because they were located within militarized zones.
 - 1 school could not be assessed because of on-going de-mining activity.
 - 1 landowner prevented the assessment team from entering the school due to lack of compensation from the ROYG for the the school facility’s use of his land.
 - A number of rural schools in Abyan remain unfinished, poorly constructed and poorly equipped. This is a good opportunity for donor assistance, despite many of these rural Abyan schools not having been directly impacted by the conflict.
-

Location Map: Abyan Education Facilities Assessed



Numerous rural schools in Abyan (such as Talhia School below in Khanfir District) remain unfinished and require rehabilitation and basic equipping



5.2 HEALTH FACILITIES – ABYAN

The Assessment Team received a list of 37 health facilities designated by the Ministry of Health (MOH) as located in Khanfir and Zingibar Districts. All of these Health Facilities were also included in the mapping and assessment of MOPHP health facilities through USAID’s former Yemen Public Health Reform (YPHR) project.

All 37 health facilities were assessed and include:

- 27 Health Units
- 7 Health Centers
- 2 Hospitals
- 1 Association (Red Cross/Crescent)

Results Overview

- Of the 37 facilities presented by the MOPHP, 34 were assessed and recorded in the Assessment Database (92%).
- 2 facilities were occupied by IDPs at the time of the Assessment.
- No health facilities were assessed as having “major damage” (75% damage or more)
- 2 health facilities were assessed as having “moderate damage” (25-75%)
- 32 health facilities were assessed as having “minor damage” (25% or less)
- 2 of 34 health facilities in Zingibar had been recently rehabilitated by the World Health Organization (WHO) and International Committee of the Red Cross (ICRC) at the time of Assessment.
- 1 facility was determined to be a private house.
- 1 facility was found to be no longer functioning as a Health Unit
- 1 facility did not exist.



Conflict damage observed at Zingibar Hospital



Zingibar Mother & Child Clinic recently renovated by WHO

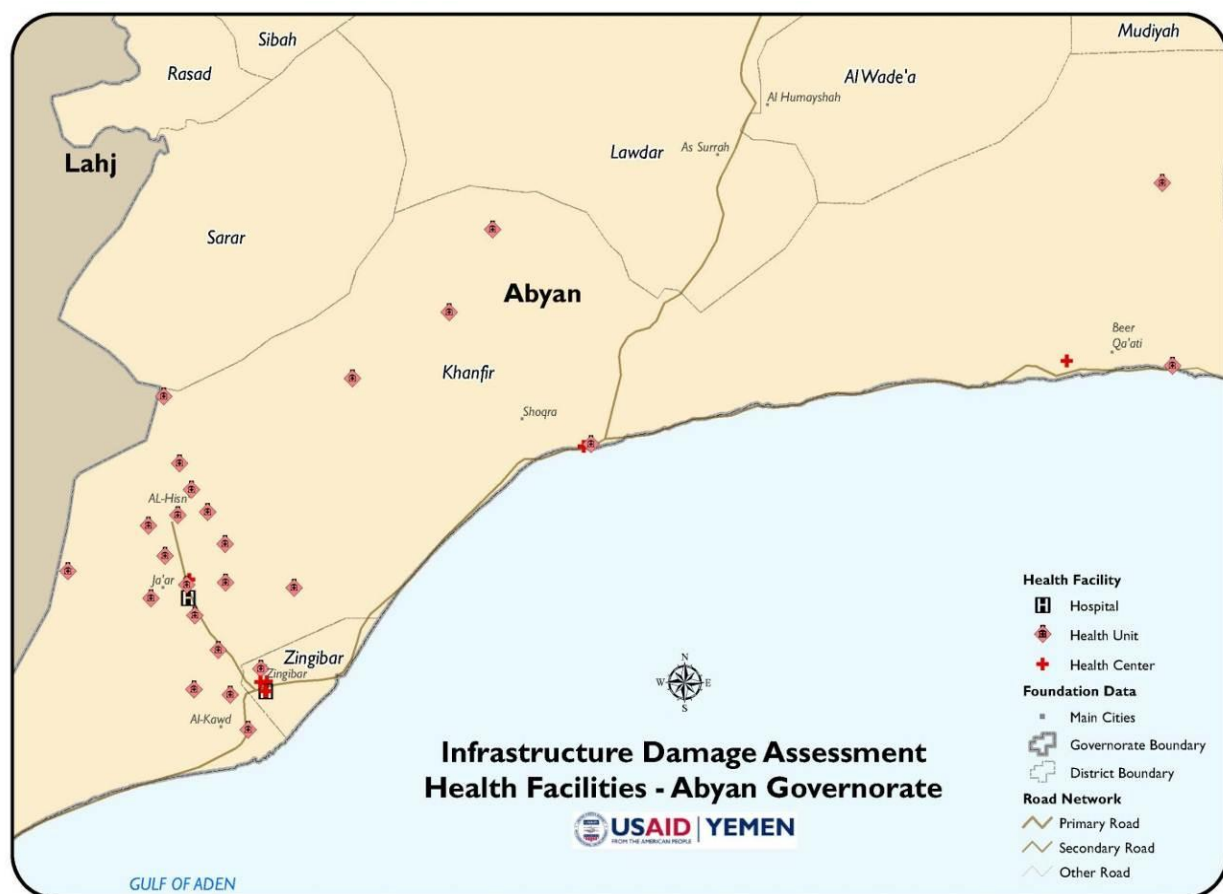


Common example of non-functional rural Health Unit

Photos: USAID/YMEP/IRD

- 2 additional health facilities were proposed by CLP for rehabilitation in early 2013.
- As in the case of rural schools, small rural health units in Abyan are generally poorly constructed and often lack basic health equipment and would benefit greatly from donor assistance.

Location Map: Health Facilities Assessed - Abyan



5.3 PUBLIC MARKETS - ABYAN

The Assessment Senior Program Manager met the Abyan Director for the Ministry of Public Works and Highways to discuss other public facilities, beyond the school and health facilities, that might require rehabilitation in order to restore municipal services in Abyan Governorate. Seven public markets were specifically identified for assessment. Two markets were determined to be privately owned and operated so were not included in the assessment SOW. Markets that were visited and assessed include:

- Vegetable Market / Zingibar
- Fish Market / Zingibar
- Fish & Vegetable Market / Khanfir
- Vegetable Market / Khanfir
- Meat Market / Khanfir

Results Overview:

- The Fish Market in Zingibar sustained substantial damage during the conflict and will cost approximately US\$150,000 to repair.
- Both Vegetable and Fish Markets in Zinjibar were determined to be commercially operational, despite damages and poor maintenance.
- 3 public markets in Khanfir require minor or moderate repair to improve commercial standards. These markets are in a state of disrepair and are very unsanitary, but are nonetheless operational, in their current state.
- The Zinjibar and Ja'ar qat markets are privately owned facilities and were therefore not assessed.



Zingibar Fish Market was severely damaged by the conflict

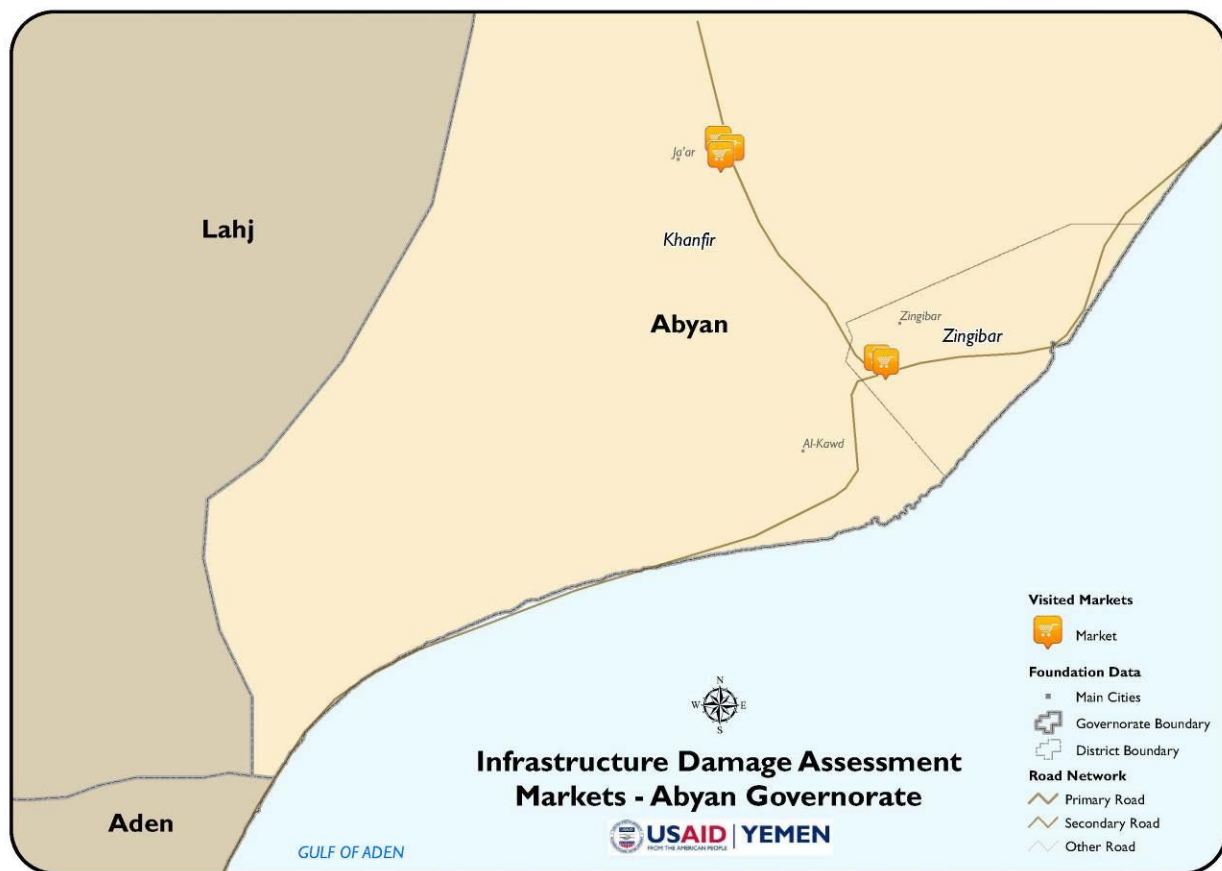


Ja'ar Central Market is poorly maintained and unsanitary



Vendors are actively operating outside stalls in Zingibar and Ja'ar

Photos: USAID/YMEP/IRD

Location Map: Markets Assessed - Abyan

5.4 PUBLIC HIGHWAYS - ABYAN

The Abyan Director of Public Works and Highways identified seven major roads and highways in Abyan, totaling more than 400 km that needed to be assessed. As can be observed in the location map below, the main length of highway that the team assessed was National Highway 2 (N2), which covers over 185 km of coastal highway from the western to the eastern borders of Abyan Governorate. The highways assessed include:

- N2 Al-Alam to Zingibar 43 km
- N2 Zingibar to Ahwar 135 km
- R6214 Zingibar to Batais 42 km
- N6 Shaqra to Lawder 75 km
- N6 Lawder to Mukayris 13 km
- N67 AlOain to Ahmar 60 km

Results Overview

- Much of the conflict-related damage to road surfaces in Abyan has already been repaired by the Department of Public Works and Highways.
- A significant extent of the road damage assessed in Abyan has resulted from seasonal rains that have washed out barriers and shoulders.
- Medians and walkways in Zingibar also require extensive repair, in large part due to holes in the median, created by the looting of lighting poles, and the looting of paving bricks.
- The repairs proposed by this Assessment address both damages that were a direct result of the conflict and other damages that resulted from weather-related factors and lack of regular road maintenance.
- The Assessment team recorded all damage locations by GPS points. We recommend replacing the damaged parts of the road with new materials per the specifications and guidelines of the American Association of State Highway and Transportation Officials (AASHTO).



Common road shoulder damage due to erosion and lack of maintenance



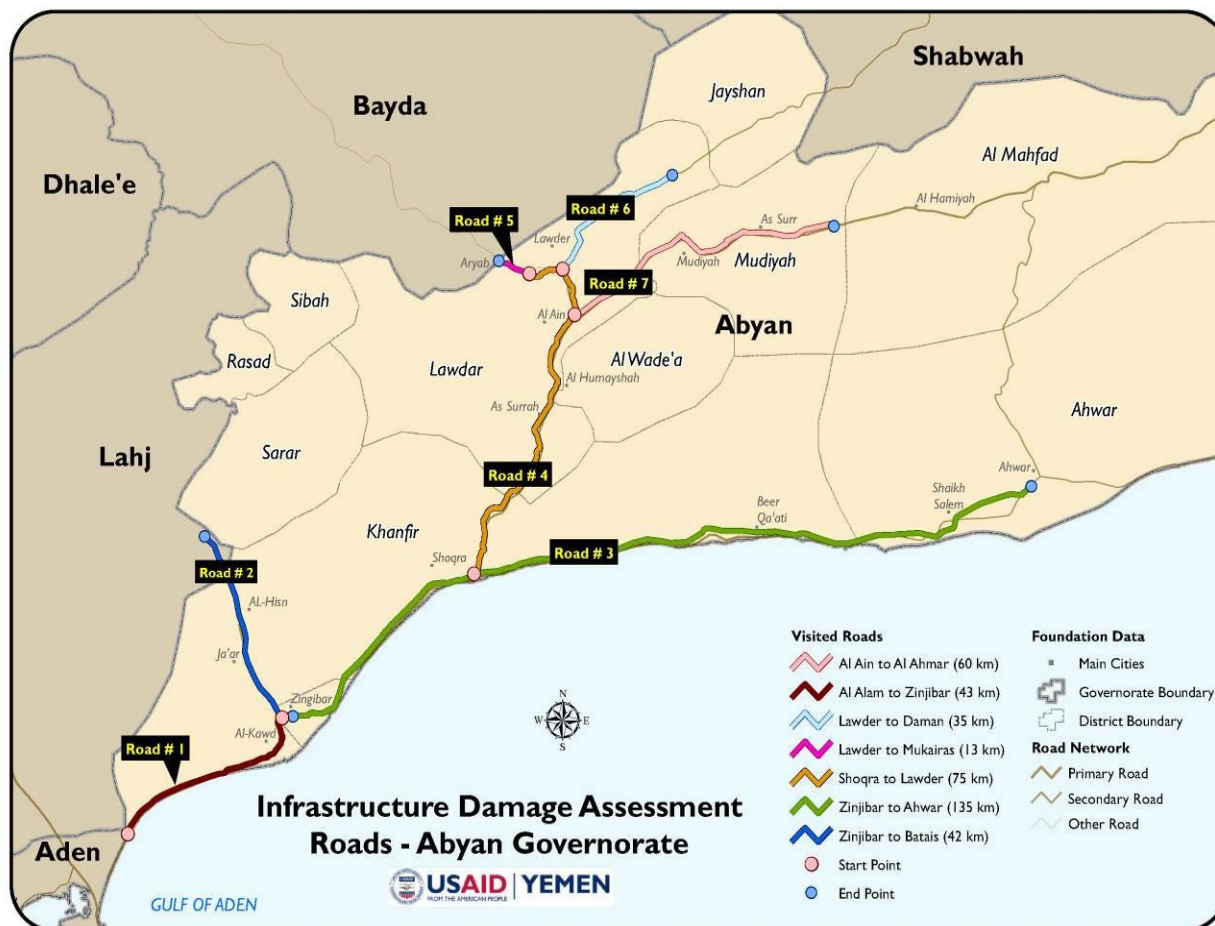
Badly damaged mountainous road due to weather-related washout



Bridges in Abyan were not damaged in the conflict

Photos: USAID/YMEP/IRD

Location Map: Roads Assessed - Abyan



5.5 ELECTRICITY - ABYAN

At the request of the Abyan Director of Electricity, the Assessment team focused on assessing one major electrical line from the border of Aden governorate to Al Koud in Zingibar. It should be noted that, despite the fact that the assessed 43 km of power line is non-functional, a separate primary high voltage power line between Aden and Zingibar remains operational. The OTI program has approved funding for the restoration of the electrical network between Zingibar and Ja'ar cities, including the repair of 14 sections of electrical network in Zingibar and Al-Koud.

Results Overview

- The 43 km power line from Khur Makser District in Aden to Zingibar District (Al-Koud) in Abyan encountered severe damage during the conflict.
- More than 100 km of copper power cables were cut and looted along this 43 km stretch of highway. Fourteen transformers and more than 100 electricity poles were also stolen or damaged.
- The Assessment Team collected and mapped the grid coordinates of each of the damage locations.



43 km of electrical cables are damaged or looted

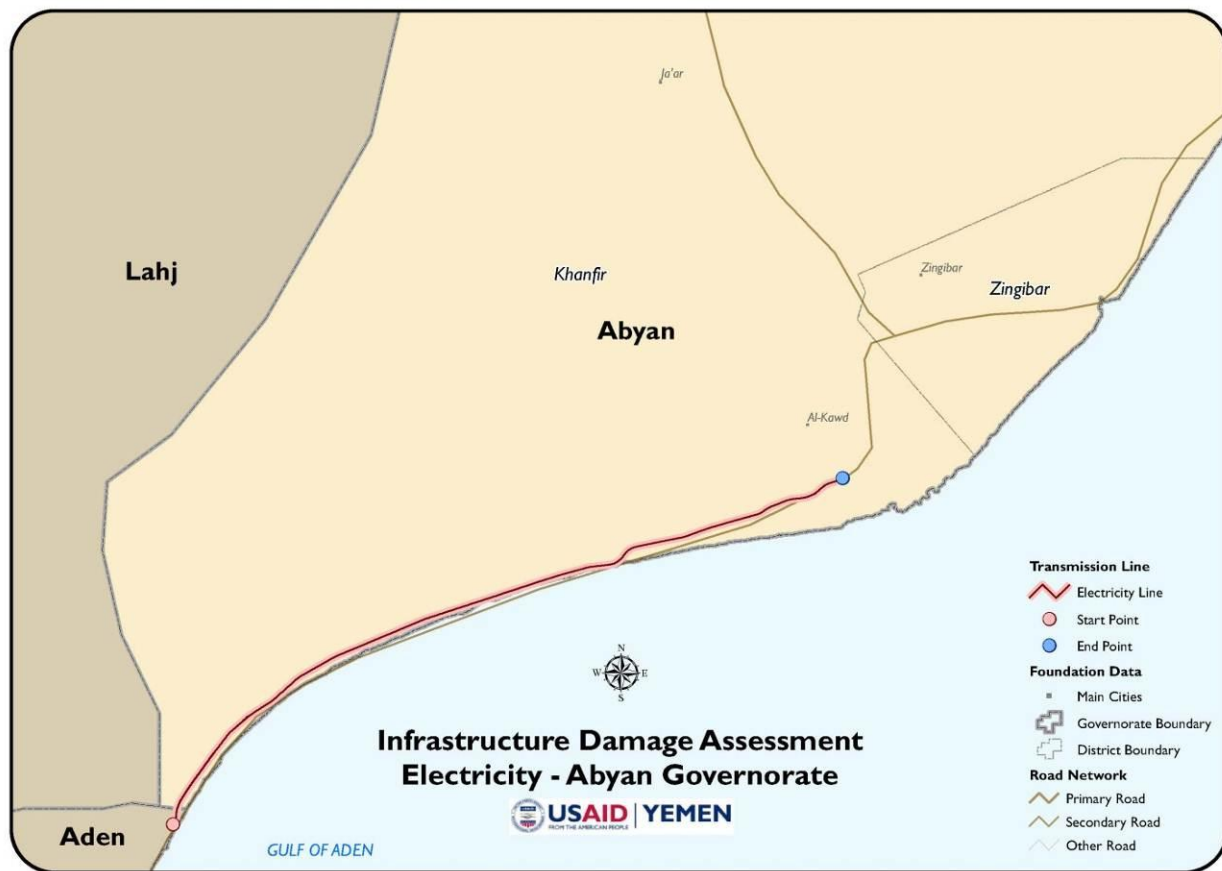


Transformers have been stolen and damaged



Electrical posts and light posts are damaged

Photos: USAID/YMEP/IRD

Location Map: Electricity Assessed - Abyan

5.6 IDP SCHOOLS - ADEN & LAHJ GOVERNORATES

Background

The purpose of this additional assessment was to assess and map the extent of damage, equipment loss, and dilapidation of water and electricity systems in schools and other IDP government buildings in Aden and Lahj governorates and the estimated estimating the cost to repair or re-equip these facilities. The Assessment Team was also tasked by USAID to assess the number of double student desks needed in each of the IDP schools in Aden and Lahj.

The concentration of IDPs in Aden and Lahj has created an unbearable strain on the governorates' already weak infrastructure and services, including sanitation, education, water, health and electricity. In some instances, friction has occurred between the hosting community in Aden and the Abyan IDPs, particularly around the issue of using schools for emergency shelter, which itself fails to provide IDPs with adequate living conditions consistent with international standards. Additionally, IDPs who inhabit the schools are limiting the opportunity of the hosting communities to send their children to be educated. IDPs are beginning to return to their home communities and are slowly vacating schools in Aden and Lahj. Schools are left in disrepair and must undergo substantial rehabilitation and re-equipping before students can return. Needs include repair to structural damage, overdue maintenance to sanitation systems, and re-equipping of supplies and furniture damaged or looted.

The critical need in Aden and Lahj in early October 2012 was to conduct a comprehensive assessment of the IDP schools and public buildings to accurately understand the reconstruction requirements in order to prioritize interventions and ensure that all who are in need of assistance receive it.

This Assessment will enable USAID's Damage Assessment in Aden and Lahj to result in the mapping and categorizing of the damage to public buildings formerly occupied by IDPs, in addition to engineering estimates of rehabilitation or equipment costs for each object. The Governors of Aden and Lahj need help in gathering the data on the damage levels, identifying and prioritizing reconstruction, and presenting a coherent picture of the requirements to the ROYG and the international community. With local and international actors from the public and private sectors all proposing to work in Aden and Lahj, gathering central data on needs and priorities will facilitate a coordinated response amongst the diverse actors. Using mobile and internet technologies to collect and store the assessment data will help develop a central database that is transparent to all. This data will be included in the Assessment Database.

Results Overview:

- 78 IDP schools in Aden were assessed.
- 20 of 78 of the Aden schools were occupied by IDPs at the time of assessment in November 2012. The ROYG has decided to retain 7 of these IDP schools in Aden as longer-term centers for Abyan IDPs.
- Some IDP schools in Aden are operating classes simultaneous to IDP occupation in adjacent rooms.
- 39 IDP schools in Lahj were assessed.
- None of the Lahj schools remained occupied by IDPs at the time of assessment in November 2012.
- 14,878 student double-desks are required in Aden IDP schools.
- 4,810 student double-desks are required in Lahj IDP schools.
- Significant looting by IDPs of school equipment and fixtures (electrical, doors, windows, fans, toilets etc.) has occurred.
- Damage to these IDP schools is primarily related to IDP occupation and was assessed as being “minor to moderate,” requiring painting and tiling, replacement of fixtures, windows, doors and electrical fixtures, and repair of bathroom facilities.
- Two of the Lahj IDP schools were assessed as having “major damage” due to poor construction of original structures and significant disrepair.



IDP families still occupy a number of schools in Aden

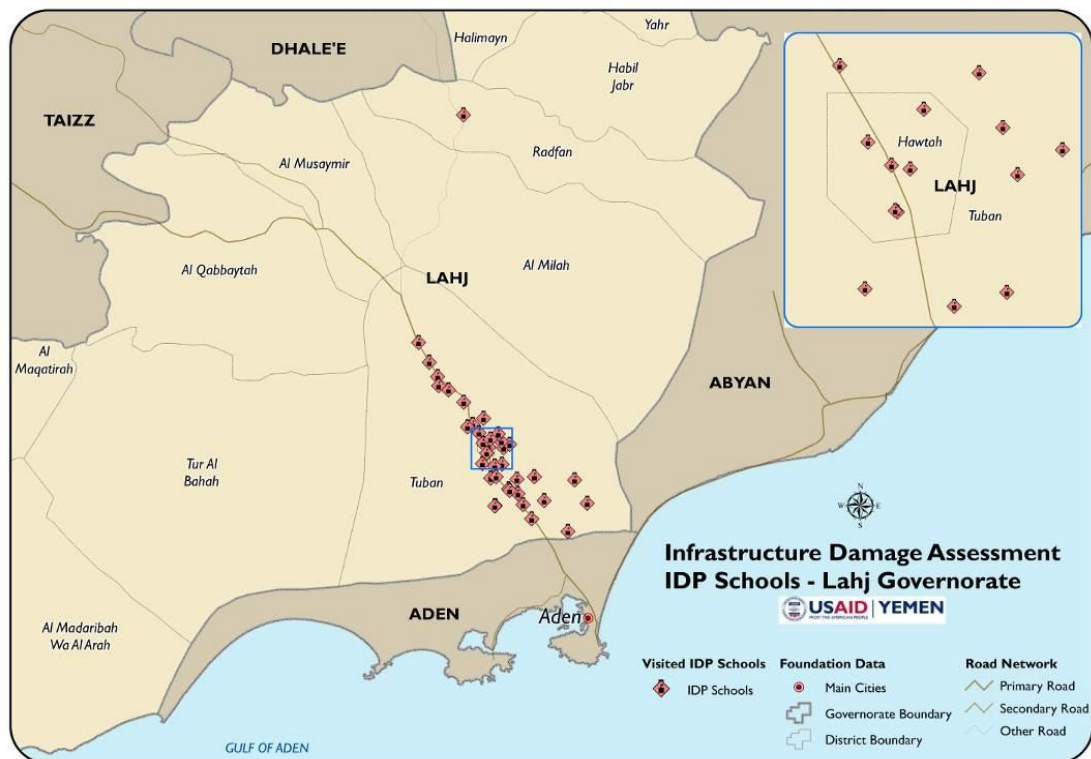
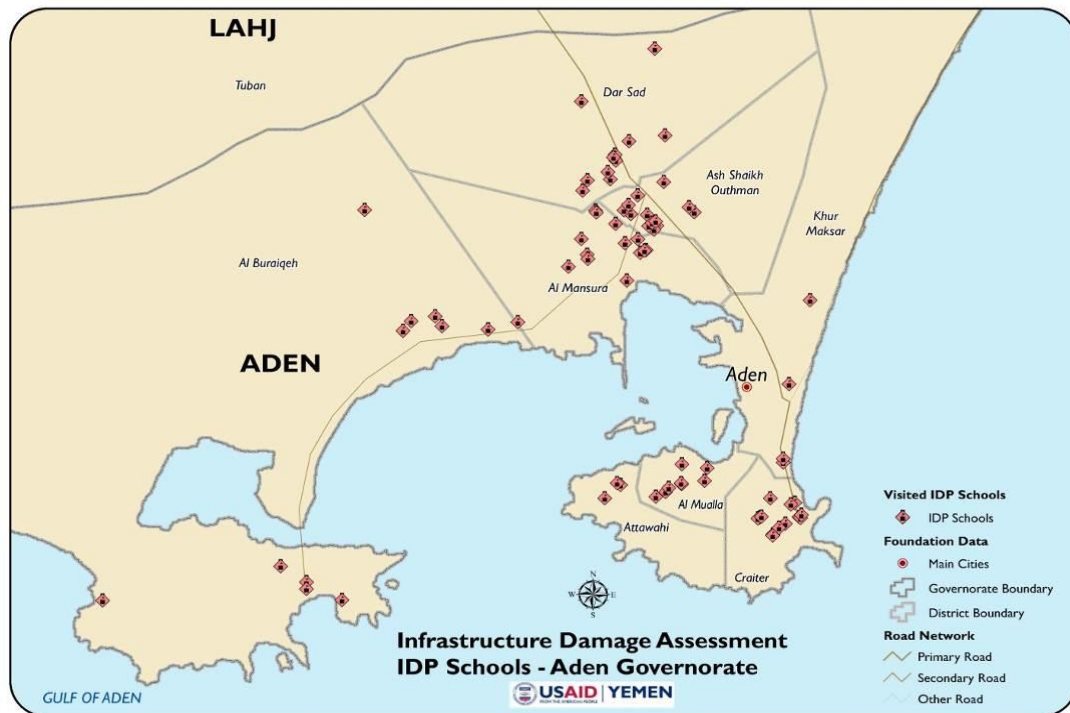


Classes are over-crowded and do not facilitate a proper learning environment



Inadequate or damaged classroom facilities in some Lahj IDP schools result in students having to study outside.

Photos: USAID/YMEP/IRD

Location Maps: IDP Schools Assessed – Aden and Lahj

CONCLUSION

The team successfully completed the Assessment of 281 facilities and infrastructure in Abyan, Aden and Lahj governorates. Despite the initial concerns regarding security in Abyan, no significant incidents or constraints were encountered by the team during the 2.5 months of fieldwork. Use of advanced technology in the collection, storage and mapping of data from this Assessment not only aided the speed at which the Assessment could be completed but will also greatly facilitate the distribution and use of the collected data by the ROYG, USAID, other international donors, and the Abyan-based implementers following the Assessment.

The Assessment determined that the majority of substantial conflict-related damage in Abayn governorate was concentrated primarily in Zingibar district and in the Ja'ar area of Khanfir district. The Assessment determined that there remains an immediate need for the ROYG and international donors to quickly fund the rehabilitation of schools, education centers (GEO and DEO facilities in Zingibar and Khanfir), the general hospital in Zingibar and the Zingibar Fish Market that were badly damaged in the conflict and remain either non-functional or partially operational. Other schools and health facilities in Abyan that were not damaged in the conflict still require significant investment in maintenance, rehabilitation, and equipping to upgrade and sustain these public service facilities. It was surprising to note that despite the intensity of the conflict, the damage to roads in the region was minimal and has already been largely repaired by the Ministry of Public Works and Highways. No major damage was sustained by bridges in Abyan. The remaining damage to roads in Abyan is primarily due to weather-related damage and erosion.

The additional assessment of 78 IDP schools in Aden and 39 IDP schools in Lahj found that significant damage occurred to the internal structure of these schools. It also found that the schools were subject to the looting of windows, doors, electrical and plumbing fixtures and damage to equipment. This looting and IDP-related damage has substantially deteriorated the condition of these schools, which now require a significant investment in rehabilitation and re-equipping. Twenty of the 78 IDP schools assessed in Aden remained occupied (either completely or partially) by IDPs at the time of the Assessment in November 2012. The Lahj schools were fully vacated of IDPs at the time of the November 2012 assessment.

The assessment of double student desks in the Aden and Lahj IDP schools determined that 14,878 desks are needed in the Aden IDP schools and 4,810 desks are needed in the Lahj schools.

In the initial weeks of the USAID Assessment, there was some resistance by a few ROYG officials in Abyan to support yet another assessment in their governorate. At the conclusion of the assessment, however, during the presentation of the findings and the database reports and mapping capacity to the ROYG officials from Abyan and Aden, senior ROYG representatives from MOPIC, the Abyan Governor's Office, the Abyan Ministry of Public Works and Highways, and the Abyan and Aden Ministry of Education were extremely satisfied and appreciative of the consolidation of the Assessment data. They thanked the Assessment team for the impact this collective data and comprehensive reports will have on their ability to better understand, communicate and prioritize the needs of their governorates during the months of reconstruction and rehabilitation that lie ahead.

USAID, YMEP and IRD presented the Assessment's findings to MOPIC in Sana'a and to the UN and INGO communities. Discussions will take place in the coming weeks regarding the ongoing use of the Assessment Database tools and the possibility for these to be operated and managed in the future by the MOPIC.

ANNEXES

Annex 1: Assessment Workplan

Annex 2: Sample Assessment Summary Report

Annex 3: Sample Assessment Bill of Quantity

Annex 4: Assessment Master Tracker